

REMARKS

In the Office Action dated July 3, 2003, claims 1-27 were rejected under 35 U.S.C. §112, first paragraph as failing to comply with the written description requirement because the Examiner stated the specification as originally filed does not provide support for the limitation in claims 1 and 8 of the phrase "without a stoppage." This rejection is respectfully traversed for the following reasons.

First, although the Examiner in paragraph three at page two of the Office Action referred to this phrase as being "newly added," that phrase was added in Amendment "B", filed on September 11, 2002, which was subsequently reviewed for rendering the December 2, 2002 Office Action, and no objection to the insertion of that phrase at the time it was made was raised in that Office Action.

Applicants acknowledge that the literal phrase "without a stoppage" does not occur in the present specification as originally filed, however, as used in claims 1 and 8 this phrase indicates that the item to be weighed is moved in a continuous manner across the weighing pan while weighing of the item takes place. Applicants believe that this limitation was inherently already present in claims 1 and 8 as originally filed, by virtue of each of those claims referring to a "dynamic scale." As has been extensively discussed in previous responses, the terms "dynamic scale" and "static scale" or well known to those of ordinary skill in the field of weighing, and are standard terms in that field with well-defined respective meanings. The definition of a "dynamic scale" or "dynamic weighing" means that an item is weighed without stopping the item on the weighing pan, in contrast to a "static scale" or "static weighing" wherein the item comes to a stop on the weighing pan before the actual weight measurement is made. The advantages and disadvantages of each of these

weighing techniques also have been extensively discussed in Applicants' previous responses.

Despite the explicit reference in claims 1 and 8 to a "dynamic scale" the Examiner in the earlier Office Actions relied on references disclosing static scales. As discussed in Applicants' responses to those Office Actions, Applicants believed that simply referring to a "dynamic scale" in claims 1 and 8 was sufficient to preclude usage of those references against the subject matter of claims 1 and 8. Nevertheless, Applicants were willing to amend claims 1 and 8 to explicitly include the "hallmark" of a dynamic scale in those claims, namely that the item is weighed on the weighing pan without a stoppage. This was also in recognition of the fact that the term "dynamic scale" occurs in the preamble of each of claims 1 and 8, and therefore the Examiner may have felt justified in not giving it patentable weight.

Therefore, Applicants submit that merely by using the terms "dynamic scale" and "dynamic weighing" at numerous locations throughout the original specification and claims, this was sufficient to inherently inform those of ordinary skill in the art that the type of weighing involved occurs "without a stoppage" of the item on the weighing pan.

This is not an idiosyncratic definition which only the present Applicants have adopted. Evidence that the term "dynamic scale" and/or "dynamic weighing" has the aforementioned well-understood meaning is available from one of the earlier references cited by the Examiner, namely United States Patent No. 6,265,675 wherein a "dynamic scale" is defined as a scale wherein weighing is carried out during transport (column 2, lines 37-38). As further evidence that this is a conventional, well-understood term, attached hereto is a copy of United States

Patent No. 5,585,604, wherein "dynamic weighing" as defined as weighing an object, while in motion, over a weighing platform (column 1, lines 7-10).

In addition to using the term "dynamic scale" and "dynamic weighing" throughout the original specification, the original specification at page 8, in line 2, refers to the conveyor belt being operated to assure "a continuous and smooth flow of pieces of mail A." Applicants submit the use of the term "continuous" to describe the flow of mail pieces is clearly consistent with, and the same as, stating that the pieces flow "without a stoppage."

Moreover, the actual weighing procedure is described in detail in the original specification in the text describing Figure 5, beginning at page 12, line 6, wherein the positions POS2, POS3 and POS4 are explicitly stated as indicating successive positions of the item to be weighed during the measuring time interval (during which motor regulation is deactivated). In the next paragraph the actual weighing procedure is described, and there is no mention whatsoever of any stoppage of the item to be weighed (because no such stoppage occurs).

Applicants would not object to using a different term other than "without a stoppage" having the same or similar meaning, in view of the fact that the phrase "without a stoppage" is not literally present in the original specification, or Applicants would be willing to add the phrase "without a stoppage" at an appropriate location in the specification, if the Examiner believes this is necessary. Since Applicants believe this phrase is abundantly supported by the other language in the specification as originally filed, such an amendment could be made without introducing new matter. In view of the fact that the intended meaning of "without a stoppage" is perfectly clear to those of ordinary skill in the art upon reading the

original specification, and in view of the well-understood meanings which those of ordinary skill in the art have for the terms "dynamic scale" and "dynamic weighing," Applicants submit, however, that no further amendments are needed in the specification or claims.

All claims are therefore submitted to be in full compliance with all provisions of §112, first paragraph.

Additionally, claims 1-4 and 6 were rejected under 35 U.S.C. §103(a) as being unpatentable over Tsukasa et al. and Hayashi. Claim 5 was rejected under 35 U.S.C. §103(a) as being unpatentable over Tsukasa et al. and Hayashi, further in view of Freeman et al. Claim 7 was rejected under 35 U.S.C. §103(a) as being unpatentable over Tsukasa et al. and Hayashi, further in view of Feinland et al. Claims 8-10, 21-23 and 26 were rejected under 35 U.S.C. §103(a) as being unpatentable over Tsukasa et al., Manduley et al. and Feinland et al. Claims 11-13 were rejected under 35 U.S.C. §103(a) as being unpatentable over this combination, further in view of Freeman et al. Claims 14-20 were rejected under 35 U.S.C. §103(a) based on the Tsukasa et al./ Manduley et al./ Feinland et al. combination, further in view of Kalm et al. Claims 24 and 25 were rejected under 35 U.S.C. §103(a) as being unpatentable over Tsukasa et al., Manduley et al. and Feinland et al., further in view of Cordery et al. Claim 27 was rejected under 35 U.S.C. §103(a) as being unpatentable over Tsukasa et al., Manduley et al. and Feinland et al., further in view of Sakai et al.

These rejections are respectfully traversed for the following reasons.

In substantiating the rejection of claim 1 based on the teachings of Tsukasa et al. and Hayashi, the Examiner acknowledged that the Tsukasa et al. reference does

not explicitly disclose the deactivating and reactivating steps of claim 1. The Examiner stated that the Hayashi reference discloses "adjusting the conveyor belt speed based on the weight of the object thereon so that the conveyor belt is deactivated and activated." The Examiner also stated "it would have been within the level of ordinary skill in the art to modify the method of Tsukasa et al. by adopting the teachings of Hayashi to obtain a variable speed conveyor belt that weighed objects on the fly." Applicants respectfully disagree with both of these statements of the Examiner. First, there is no teaching whatsoever in the Hayashi reference to deactivate or activate the conveying speed of the conveyor 15, which feeds the dough into the nip formed by the rollers 25 and 23. In fact, the Hayashi reference teaches exactly the opposite, namely that continuous, uninterrupted regulation of the conveying speed should take place. This is essential to the intended operation of the Hayashi apparatus, since it is intended, as summarized at column 3, lines 30-34, that when the weight of a unit length of the dough is heavy, the motor 5 is driven at a lower speed, and when the weight of the unit length is high, the motor is driven at a higher speed. It is therefore essential that the motor always be driven, albeit respectively higher or lower speeds. This is not a teaching to deactivate the regulation, but it is in fact a teaching to continuously maintain the regulation so that the aforementioned higher and lower speeds can always be employed, as needed.

This is also made clear by the relationship between the speed of the conveyor and the weight of the dough portion which is given at column 4, line 10 of the Hayashi reference. The product of the relevant weight and each of the different conveyor speeds is intended to be equal to a constant. If the regulation were deactivated, adherence to this constant could never be maintained. Moreover, since

there is no teaching to operate the apparatus disclosed in the Hayashi reference without regulation, there is no information provided in that reference as to how the apparatus would operate in the absence (deactivation) of regulation. Would the conveyor 15 continue to move, or would it simply stop? No details on this point are provided anywhere in the Hayashi reference, because deactivation of the regulation is not a situation which is ever expected or intended to occur in the Hayashi reference.

Equally as importantly, Applicants respectfully submit the Examiner's alleged reason for modifying the Tsukasa et al. reference in accordance with the teachings of Hayashi is the result of hindsight, and is not the result of an objective analysis of how a person seeking to solve a problem in the field of dynamic weighing of postal items would seek solutions to particular problem. First, Applicants submit it is irrelevant as to whether such a modification "would have been within the level of ordinary skill of the art" to such a person. This is not the standard for obviousness under 35 U.S.C. §103(a). The sole issue is whether the proposed modification would have been obvious to a person of ordinary skill in the art. Even if a solution is non-obvious, it may still be "within the level of ordinary skill in the art," once the non-obvious solution is explained to a person of ordinary skill in the art. Moreover, the Tsukasa et al. reference *already* allows the weighing of objects "on the fly," and therefore there is no problem or deficiency in the Tsukasa et al. reference which a person of ordinary skill in the art would believe required improvement or correction.

Both the Tsukasa et al. and Hayashi references, for different purposes, adopt the conventional thinking of always maintaining regulation of the conveying speed. Of course, this regulation, by definition, involves *changing* the conveying speed as

needed, however, this is not the same as deactivating and re-activating the conveyor speed regulation, as set forth in independent claim 1. In fact, the two concepts are mutually exclusive. Either regulation is maintained throughout operation, as taught by Tsukasa et al. and Hayashi, or regulation is deactivated, as in claim 1.

Therefore, not only would a person of ordinary skill in the art have no motivation whatsoever to modify the Tsukasa et al. apparatus in accordance with the teachings of Hayashi, even if such a modification were made (for reasons unknown to the present Applicants) a method as set forth in claim 1 still would not result. Claim 1, therefore, would not have been obvious to a person of ordinary skill in the art based on the teachings of Tsukasa et al. and Hayashi, nor with any of claims 2, 3, 4 and 6 depending therefrom.

The Tsukasa et al./ Hayashi combination was used as the basic combination, with other secondary references, for rejecting claims 6 and 7, and the above arguments in support of patentability therefore apply equally to claims 5 and 7. Even if the Tsukasa et al./ Hayashi combination were modified in view of one or both of the secondary references relied upon to reject claims 5 and 7, the method of those dependent claims still would not result.

As to the rejection of independent apparatus claim 8 based on the Tsukasa et al., Manduley et al. and Feinland et al. Applicants submit the following arguments in traversal thereof.

Even though in rejecting claim 1 the Examiner explicitly stated that the Tsukasa et al. reference does not disclose the deactivating and reactivating steps of claim 1, with regard to claim 8 the Examiner stated the Tsukasa et al. reference teaches a controller which performs the deactivating and reactivating functions of

claim 8. None of the specific citations to the Tsukasa et al. reference which the Examiner provided in support of this statement provides such a teaching. The Tsukasa et al. reference explicitly state that the feeding conveyor 1 is moved at a predetermined *constant* speed relative to the weighing conveyor 3 (column 2, lines 30-34). All of the motors M1, M2 and M3 in the Tsukasa et al. apparatus are a.c. motors, and their respective speeds are controlled (set) by supplying control pulses thereto, all at frequency f2, as shown in Figure 1. There is no feedback loop or servo loop shown at all in Figure 1 or any of the other figures which would allow the frequency f2 to be altered or adapted. It is clearly the intent of Tsukasa et al. that all of the motors M1, M2 and M3 should operate at the same speed, and that this speed should be constant. If this were not the case, it would not be possible to control all three motors using the same frequency converter 20, as shown in Figure 1. The same frequency converter is also shown in the embodiments of 6A, 6B and 6C.

Therefore, there is no "regulation" of the conveying speed at all in the Tsukasa et al. reference. The respective speeds of the motors are simply set at a desired speed, by a predetermined conversion of the incoming frequency f1 to the frequency converter 20 and the output frequency f2. This is not speed regulation; it is merely speed setting. Moreover, there no teaching in the Tsukasa et al. reference that there is every any interruption or stoppage of the pulses represented by the frequency f2, and even if this were to occur, this would not be a "deactivation" of the conveyor speed regulation, it would simply cause the relevant conveyor to stop. Since the three conveyors occur in succession, it would be disastrous for the intended operation of the Tsukasa et al. reference if one of those conveyors

suddenly came to a stop, as would be the case if the control pulses f2 were suddenly interrupted.

Therefore, the Tsukasa et al. reference does not provide the aforementioned teaching relating to deactivating and reactivating of the conveyor speed regulation, and in fact provides explicit teachings which are the opposite of such deactivation/reactivation.

Therefore, even if the Tsukasa et al. reference were modified in accordance with the teachings of Manduley et al. and Feinland et al., a scale as set forth in claim 8 still would not result. Moreover, the Manduley et al. reference is exclusively a *static* weighing system as discussed at page 7 of Applicants' Response to the December 2, 2002 Office Action (filed April 7, 2003). As has been extensively previously discussed, those of ordinary skill in the art would have no basis whatsoever to modify the operation of a dynamic weighing system with teachings relating to a static system. If such a person of ordinary skill did have the insight to modify a dynamic system in accordance with teachings relating to a static system, this would be so counterintuitive as to be an insight supporting patentability, rather than negating patentability.

Therefore, regardless of whether the Examiner is correct with respect to the teachings of Feinland et al., a combination of Tsukasa et al. Manduley et al. and Feinland et al. would not be comparable to the subject matter of claim 8. Additionally, there is no persuasive motivation whatsoever as to why a person of ordinary skill in the art allegedly would modify the teachings of Tsukasa et al., a dynamic system, in accordance with the teachings of Manduley et al., a static system.

Therefore, the subject matter of independent claim 8 would not have been obvious to a person of ordinary skill in the art based on the teachings of Tsukasa et al., Manduley et al. and Feinland et al., nor would any of claims 9, 10, 21-23 and 26 depending therefrom.

As to the remaining dependent claims 11-20, 24 and 25, all of those claims were rejected using the Tsukasa et al./ Manduley et al./ Feinland et al. combination, with additional reliance on respective secondary references. Even if the Examiner is entirely correct regarding the teachings of those respective secondary references, the basic Tsukasa et al./ Manduley et al./ Feinland et al. combination does not correspond to the subject matter of independent claim 8, from which each of those dependent claims depends. Therefore, the proposed combinations with the further secondary references, even if made, would not result in the subject matter of the respective dependent claims 14-20, 24 and 25. None of those dependent claims, therefore, would have been obvious to a person of ordinary skill in the art based on the combinations proposed by the Examiner.

All claims of the application are therefore submitted to be in condition for allowance, and early reconsideration of the application is respectfully requested.

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